

GRADUATES' ASSESSMENT OF THE M.S. DEGREE PROGRAM
IN INSTITUTIONAL MANAGEMENT AT KANSAS STATE UNIVERSITY

by

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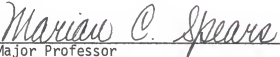
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INTRODUCTION

Criteria for membership in The American Dietetic Association (ADA) were revised in 1959 to include an advanced degree in a related field. As in other routes to membership, academic requirements of Plan IV, which is competency based, must be met in addition to a six month qualifying experience. In 1981, an ADA census revealed that almost 40 percent of members either held or were working toward a master's degree (1) as opposed to only 20 percent in 1961 (2). This increase in advanced degrees may be attributed to changes in admission criteria and is a corollary to an increase in graduate enrollment in universities. Since possession of a graduate degree is an exceedingly popular route to ADA membership, academic institutions offering these programs are obligated to assure competency of graduates which satisfies the requirements of Plan IV.

Undergraduate programs are subject to inspection for accreditation by various governing organizations. Dietetic internship and coordinated programs are accredited by ADA, but presently Plan IV programs are only approved. No outside agencies, however, have jurisdiction over graduate programs; therefore, the responsibility for assuring the meeting of competencies devolves upon professional leadership and educators. For these reasons, educational leaders must evaluate their own graduate programs.

Dietetic educators in the Foodservice System Management Education Council (FSMEC) issued a call for research on graduate education in food systems management in order to develop a data base for a position

paper and an ad hoc committee was appointed to assemble essential information (3). Spears (4) reported at a FSMEC conference on specific issues of graduate education identified by the ad hoc committee and requested feedback from the membership. At the Eleventh Biennial Conference, educators decided to support research in this area (5) and, subsequently, FSMEC partially funded a study conducted by Seal et al. (6) at Kansas State University (KSU) on graduate level competencies in food systems management. A number of investigations on competency development and program evaluation have been made at KSU primarily on undergraduate programs (7-10). Exceptional growth in the numbers of graduate students intending to meet academic requirements of Plan IV has led to serious evaluations of the master's degree program at KSU.

The purpose of this research is to evaluate the Master of Science (M.S.) degree program in Institutional Management at KSU based on the perceptions of graduates from 1974 through 1984 who are employed in some area of dietetics or foodservice systems management. This purpose is supported by a report on graduate education in the United States which included a recommendation to improve the limited quantity and quality of available information (11). The evaluation instrument includes reference scales on relevance, preparation, and competence gained from other sources for application to concepts drawn from research by Scheule (10), Seal et al. (6), and also from the nine major responsibility statements of the role delineation study in foodservice systems management (12). Specific objectives are:

- to identify professional and educational characteristics of graduates;
- to determine relevance of specific foodservice systems management concepts to present professional responsibilities of graduates;
- to rate quality of educational preparation for professional practice;
- to determine if competence was gained from sources other than the graduate program;
- to use role delineation responsibility statements for categorizing concepts; and
- to assess perceived current educational needs of graduates practicing in the profession.

REVIEW OF LITERATURE

Graduate Education

Hillway (13) characterized graduate education as concentration upon one field of study; whereas the goal of an undergraduate education is to acquire a broad cultural base. Graduate study usually involves research as the student attempts to discover new truth; whereas undergraduate study consists of reviewing known facts and ideas. The graduate student is described as an apprentice in scholarship, serving under one or more active faculty researchers, and is expected to develop the art of working independently.

The Council of Graduate Schools of the United States (CGS) (14) stated in a policy that the master's degree customarily is awarded following achievement substantially beyond the Baccalaureate degree. A master's program generally consists of a coherent pattern of courses capped by comprehensive examinations and a thesis or the equivalent in a creative project. Master's programs, providing more advanced specialized study in a particular field, satisfy personal needs of the student and special needs of society not met by a baccalaureate program.

In a subsequent joint policy statement, The Council On Post-secondary Accreditation (COPA) and CGS (15) stated the essence of graduate education is in the graduate degree program. A graduate degree program is defined as a set of academic experiences which must be satisfactorily completed to receive the appropriate award of a degree as Master or Doctor.

In a report of the National Commission On Student Financial Assistance on Graduate Education in America (11), a graduate experience is described as that period of formal education following the bachelor's degree. This experience is characterized by: mastering the theory, body of knowledge, and modes of thought of a discipline; training in the skills, techniques, and tools of intellectual inquiry appropriate to that field; and applying that education and training to an original research problem that advances the discipline and adds to the core of knowledge.

Types of Programs

In the COPA and CGS joint policy statement, two main types of graduate programs, distinguished by primary objectives, are described (15). A research-oriented graduate program has the objective of developing students through the master's or doctor's level in preparation for scholarly or research activity directed mainly toward the acquisition of new knowledge. Completion of the program is identified by the award of Master of Arts (M.A.), Master of Science (M.S.), or Doctor of Philosophy (Ph.D.) degree. The objective of a practice-oriented graduate degree program is to prepare students through the master's or doctor's level for professional practice primarily toward the application of existing knowledge. Completion of the practice-oriented program is identified by the award of the degree of Master of (Professional Field) or Doctor of (Professional Field). The joint policy statement suggested that the distinction between the two types of graduate programs is an attempt to clarify the degree nomenclature

rather than imply a sharp dichotomy. In many instances, the purpose and requirements of programs have merged enough to make them indistinguishable.

Purposes

Hillway (13) stated that all graduate schools do not have the same purpose. He summarized the most common purposes as follows: advancing human knowledge, training scholars for research, preparing students for a profession, and offering one or more years of advanced instruction in the student's area of interest or special needs.

The CGS and COPA (15) identified three major, traditional, and nationally recognized purposes of graduate education, the first of which is intellectual development of able and motivated individuals in a variety of disciplines essential to the pursuit of specific careers. The second is production of new knowledge through research and intellectual inquiry and application of knowledge toward the solution of technological, social, economic, and political problems and issues. The final purpose is preservation and transmission of knowledge and extension of cultural heritage to successive generations.

Mandelbaum (16) stated graduate programs, in order to meet needs of society, should look to the roles which their graduates are to assume in the society to which they belong. Passmore (17) identified three main aims of graduate education: prepare students for research which should stimulate critical and creative thinking on questions of fundamental importance, provide educational experiences which will

meet the perceived needs of the community whether long-term or short-term, and contribute to the general pool of scholarship and discovery.

Bowen (18) suggested four propositions about the nature and uses of advanced study. He stated the basic objective of advanced study is to help interested people to achieve, over their lifetimes, mastery of a field of knowledge. Advanced study in the aggregate should produce certain productive outcomes for society such as providing competent professionals and leaders, human resources to meet social exigencies, scholars to serve as carriers and developers of the cultural heritage, and skilled individuals to promote sound economical development.

Millard (19) explained that graduate education serves a wide variety of objectives which may be disciplinary, research-oriented, interdisciplinary, professional, career entry, career development, or a combination of these. Pelczar and Frances (20) stated that graduate education serves a national purpose as the wellspring of new knowledge and techniques in basic disciplines and professions.

Graduate Education in Dietetics

The American Dietetic Association (ADA) published guidelines for job titles, definitions, and responsibilities for the profession of dietetics (21). An advanced degree and successful experience were recommended qualifications for a Director, Registered Dietitian (R.D.). Advanced preparation was suggested for Associate Director, R.D., research dietitian, and teaching dietitian.

Coulter and Stanton (22), in a United States Department of Agriculture study of graduates of higher education in the food and

agricultural sciences, identified graduates in Food Science, Human Nutrition, Foodservice Management, and Institutional Management as being among those in greatest demand in the field of Home Economics. According to Fitz et al. (23), a rising demand is projected for dietetic professionals in general, and moderate growth in total numbers of dietitians in the work force between the years of 1985 and 1990.

The ADA Task Force On Education (24) identified major issues relating to promoting quality dietetic education and made some policy recommendations. All entry-level dietitians should be prepared with a common body of knowledge, skills, and values to provide the foundation for quality practice at entry and advanced levels and Standards of Education should be adopted for all dietetic education programs. Minimum academic requirements for entry-level practice should be met at the baccalaureate level, but preparation for specialty practice should require graduate education. Individual routes to membership in ADA such as the advanced degree with qualifying experience should be eliminated because graduate education is not controlled by accreditation.

The 1984 Study Commission on Dietetics (25) stated dietitians of the future should be prepared to assume more prominent roles in healthcare and other settings; therefore, dietitians would need more rigorous education to meet those challenges. Dietitians planning academic careers should pursue graduate education leading to master's or doctoral degrees. The Commission emphasized that though dietetics is not considered a graduate discipline, advanced education should be

considered desirable for all dietitians.

Gillham (26) recently reported that standards for dietetic education are in transition. The Plan IV academic requirements and essentials for coordinated undergraduate programs in dietetics, dietetic internships, and dietetic technician programs are being replaced by Standards of Education which will be implemented in 1988. These standards were the result of the recommendation made in 1978 by ADA's task force on competencies for a master plan that would assure the development of quality practitioners, be responsive to society's needs, and encompass all existing and proposed education programs.

Owen et al. (27) reported that establishment of dietetic specialties is in progress and will imply practice at an advanced level. Qualifying for specialty practice will require additional expertise beyond that defined for entry-level.

Program Evaluation

According to Weiss (28), evaluation research is intended to address the following kinds of decisions: continue or discontinue the program, improve its practices and procedures, add or drop specific program strategies and techniques, institute similar programs elsewhere, allocate resources among competing programs, and accept or reject a program approach or theory. Anderson and Ball (29) cited the principal values of program evaluation for decisions on program installation, continuation, or modification. Also, evaluation discloses evidence in support or opposition to the program.

Rutman and Mowbray (30) stated program evaluation has no uniform

definition and has a variety of interpretations relative to its purpose, scope, and methodology. They defined program evaluation as the use of scientific methods to measure program implementation and outcome for use in improving program delivery. They also insisted methodology for a program evaluation should meet the practical needs of the manager and relate to the characteristics of the program, the cost of doing the evaluation, and the type of information needed for decisions.

Program Quality

The Council of Graduate Schools (CGS) (14) specified the institution offering the master's degree assumes the responsibility to the public to establish and maintain excellence in the education of students. The CGS suggested the statement of goals and objectives of a graduate program could be useful in the reassessment of existing programs. According to the Council on Postsecondary Accreditation (COPA) and CGS (15), maintaining and improving quality has always been a dominant concern in graduate education. Continuing review and assessment are necessary to promote academic quality.

Albrecht (31) discussed the four loci of quality in graduate education: ability and preparation of students at entrance; stature and appropriateness of faculty; program design, including curricular objectives; and effective implementation of program design. He commented quality of students and faculty frequently are measured; program effectiveness is occasionally measured, but rarely is program concept measured.

Pelczar and Frances (20) recognized a major issue associated with a master's program is assessment of quality. They suggested the large number of diversified programs in subject content and differences in objectives complicate the process of program evaluation.

Methods

Anderson and Ball (29) described eight general methods of evaluations: experimental study, quasi-experimental study, correlational status study, survey, personnel or client assessment, systematic "expert" judgments, clinical or case study, and informal observation or testimony. The survey method may take a variety of forms such as personal or telephone interviews, questionnaires, observations, content analyses of records, or systematic examination of financial data. The decision to use a survey depends on the purpose of the information-gathering effort. Also the choice of a particular methodology depends on the purpose and nature of the units to be surveyed and the level of confidence desired by the evaluator. Personnel and client assessment is explained as a method in which information is the evaluation of competencies, attitudes, physical and psychological conditions, and other factors intrinsic to the content and purposes of the program.

Dietetics and Allied Health

Roach et al. (32) reported results of annual evaluations of the KSU Coordinated Undergraduate Program in Dietetics (CUP) by surveying program graduates from 1971-1975. One year after graduation, graduates were asked to rate their educational preparation and also

their supervisors were asked to rate the graduates on professional knowledge and skill, interpersonal skills, ability to work effectively within the system, and overall desirability as an employee. Program effectiveness was evaluated by the types of entry-level positions taken by graduates, how effective they perceived their preparation for professional responsibilities, and how supervisors evaluated them as entry-level dietitians. Linnenkohl and Roach (8) surveyed all graduates of the CUP at KSU through 1975 to ascertain the influence of the undergraduate program, graduate study, continuing education, and work experience on development of competency in dietetics and, also, to examine the value of career patterns as a measure of program evaluation.

At Louisiana Technical University, Rhoades et al. (33) used the Nominal Group Technique to evaluate the existing curriculum for the CUP by faculty, students, and graduates of the program. This process allowed input from all participants and successfully generated ranked and weighted problem statements for consideration in program revision.

Scheule (10) conducted a program evaluation of the CUP in dietetics at KSU based on perceptions of graduates and their supervisors. The graduates were asked to evaluate the quality of their educational experience. The performance of graduates after working from six months to a year also was rated by supervisors.

Rovezzi-Carroll and Fitz (34) reported the use of the Metropolitan Community College program evaluation model by the School of Allied Health Professions at the University of Connecticut for the undergraduate programs of clinical dietetics, physical therapy, and

medical technology. Administrators were involved with planning the design and implementation of the program evaluation which was based on five major criteria: relationship to job market profile; success in meeting needs of the clientele; graduate job performance; level of community support; and success in reaching special populations, i.e., minority, physically impaired, economically disadvantaged. Subcriteria were developed for each and weights were assigned according to perceived level of importance. Proficiency levels were established for each subcriterion and assigned ratings. Scores were obtained for each program permitting administrators to identify specific strengths and weaknesses. The survey questionnaires were mailed to employers of former graduates, current students, and the occupational community for each program. Some individual interviews were conducted for the minority, physically impaired, and economically disadvantaged students because the sample size was small. Personalized data collection was deemed more appropriate due to the sensitive and confidential nature of the data, and more in-depth information was generated. This program evaluation tool provided a data base that objectively confirmed areas where programs were effective and areas where changes and improvements were needed.

ADA Role Delineation Studies

The American Dietetic Association (ADA) conducted a role delineation study for entry level clinical dietetic personnel and published results in 1980 (35). In this study, role delineation is defined as the identification of responsibilities and supporting

skill/knowledge components for which practitioners must be accountable. In a report to the Association, Baird (36), the principal investigator, stated this study provided specific data on which decisions for the field of clinical dietetics could be based. Baird also suggested the professional community could use results to augment the standard setting process for dietetic education, certification, and practice.

In 1983, ADA disseminated role delineation and verification studies for entry-level positions in foodservice systems management and community dietetics (12, 37). The foodservice systems management study (12) consisted of nine major performance responsibility statements organized under five categories of emphasis. The role delineation study in clinical dietetics was verified in 1984 (38).

Turcotte et al. (39) surveyed professional leaders, educators, and practitioners in dietetics to rank the recommendations for allied health education made by the Allied Health Task Force. Among those ranked most essential and urgent was that education be linked to practice through role delineations.

The executive summaries of the ADA studies (12, 37, 38), stated that role delineation products will be used by the Commission on Dietetic Registration, the Council on Education and the Commission on Accreditation in the development of standards of education, and the Council on Practice for standards of practice. Also, role delineation documents were recommended as useful to educators in structuring courses and programs and in developing self-study guides. The Task Force on Education (24) recommended the role delineation studies be used as a basis for developing and verifying the competencies,

skills, and values necessary for entry-level practice to promote quality dietetic education. Spears and Gregoire (40) reported on the use by educators of the role delineation major responsibility statements as a basis for developing a list of experiences correlated with each of the ADA required learning activities for the six month qualifying experience following a master's degree.

Graduate Education in Foodservice Systems Management

In 1977, dietetic educators in the Foodservice Systems Management Education Council (FSMEC) initiated the development of a position paper on graduate education at the master's level in foodservice systems management (3) and an ad hoc committee was appointed. In 1979, at the Tenth Biennial FSMEC Conference, Spears (4) reported specific issues of graduate education identified by the committee. Input from FSMEC members was requested (41). At the Eleventh Biennial FSMEC Conference, Spears (5) reported that research on graduate level competencies in foodservice systems management was in progress. FSMEC provided partial funding for this research.

Rinke et al. (42) compared employers' perceptions of the adequacy of educational preparation in administration of dietetic students in generalist programs to the graduates' route of attainment including the internship, coordinated undergraduate, traineeship, and advanced degree programs. The employers were foodservice directors of all United States short-term hospitals with 450 or more beds. Results indicated employers believed the educational preparation varied in the four routes; internship graduates were the most adequately

prepared and advanced degree graduates the least prepared.

In a study concentrating on graduate education in foodservice systems management, Seal et al. (6) gathered information from administrators of dietetic services and educators concerning expectations for competencies of dietitians with advanced degrees in foodservice systems management. Sixty-five competency statements were developed and categorized according to the functions of the administrative dietitian designated in the Position Paper on the Administrative Dietitian in Foodservice Systems Management (43). Of the 65 competencies classified according to the consensus response on educational level required, only nine were identified as obtainable solely by graduate study. These graduate level competencies were: conducts and/or directs research, demonstrates specialized knowledge, utilizes industrial engineering techniques, utilizes mathematical forecasting, uses financial analysis techniques, evaluates job descriptions, develops computerized systems, applies research methodology, and evaluates new developments. The investigators also found that up to three years of experience was considered necessary for development of the nine graduate level competencies.

Olive et al. (44) investigated if dietitians with a master's degree and six month qualifying experience were as knowledgeable and competent as those having a bachelor's degree and twelve month internship. These two groups of graduates from the same university were compared according to registration examination scores, self-rating of clinical and administrative competencies, and supervisors' ratings of clinical and administrative competencies. The only

significant difference between the groups was that graduates with bachelor's degrees and twelve month internships received higher ratings of clinical competencies by supervisors than the master's degree graduates with six month qualifying experience. Supervisors' ratings of administrative competencies showed no differences between the two groups.

Justification for Advanced Degrees

Dowling (45) assessed career opportunities for dietitians as managers in the private sector of the foods, foodservice, and related industries. Job skills and personal characteristics for successful managerial performance were identified and perceptions of industrial managers were ascertained regarding the competence of dietitians in those skills. Also, factors influencing career opportunities were identified in four phases by interviews with recruiters from the foodservice industry, dietitians in the private sector, executives in selected foodservice contract companies, and selected managers in private-sector corporations.

All recruiters said that post-baccalaureate degrees were not required for advancement, but some reported that a master's degree was occasionally requested for a chief clinical dietitian or for an upper-level corporate position. One-half of the dietitians reported that an advanced degree had not been necessary for career advancement in their companies; however, graduate degrees were seen as becoming more important for advancement due to increasing sophistication in all areas of management, especially marketing and advertising relative to

food products. Dietitians indicated the major deficiencies in academic preparation for private sector positions were finance, marketing, general management, and communication techniques in addition to practical skills of food production and employee supervision (45).

Junkermier and Wenberg (46) surveyed U.S. academic institutions having an ADA approved Plan IV program and/or a graduate program in public health nutrition to determine the status of master's level students seeking eligibility for ADA active membership. An assessment was made of the number and kinds of dietetic related graduate programs and the number of master's level students enrolled in them. Also, the perceived process for evaluating minimum academic requirements in accordance with ADA's Plan IV for master's graduates was identified in the study. A fifty-five percent response rate revealed an enrollment of 2,933 master's level students; forty-five percent of this group were seeking active membership in ADA by the master's degree route. Results indicated confusion concerning who had responsibility for evaluating equivalency transcripts of master's level students for ADA Plan IV academic requirements. Comments from dietetic educators expressed concern that the process for reviewing academic requirements for potential active ADA members needs to be clarified and standardized.

Yates et al. (47) conducted a study to identify competencies which healthcare administrators expect foodservice directors/managers to possess and to investigate the degree to which dietetic curricula teach these competencies. Two questionnaires were developed for the

study; one for healthcare administrators and the other for dietetic educators. Dietetic programs were found to emphasize competencies in nutritional services, technical and production; whereas, healthcare administrators indicated that financial competencies were more important. Results indicated that 25.0 percent of healthcare administrators required a Bachelor of Science degree in Dietetics for a food-service director/manager position and only 11.4 percent a Master of Science degree in Dietetics. A Bachelor of Arts or Science in Business was required by 10.8 percent of the administrators, and, only 2.8 percent a Master of Business Administration.

METHODOLOGY

The Sample

The sample for the study consisted of all graduates from the Master of Science (M.S.) degree program in Institutional Management at Kansas State University (KSU) from 1974 through 1984. Addresses were sought for these graduates through the Department of Dietetics, Restaurant, and Institutional Management, the KSU alumni office, the Department of Defense, and by correspondence with persons listed on the Graduate School application form as permanent contacts. A total of 111 out of 112 addresses of former graduate students was secured.

Instrument Development

The purpose of the study was to evaluate the M.S. degree program as preparation for professional practice in advanced roles of food-service management. In the initial stages of instrument development, the 9 major and 123 specific responsibility statements from the Role Delineation and Verification Study for Entry-level Foodservice Systems Management Dietitian (12) were reviewed. Four members of the research committee selected 43 of the specific responsibilities which might be expected of foodservice management graduates with a master's degree.

Graduate level and those not specifically graduate or undergraduate level competencies as identified by Seal et al. (6) were reviewed for incorporation in the questionnaire. Five graduate and four unspecified competencies were chosen for review. Six of these nine were discovered to be closely associated with previously selected

responsibility statements, and, therefore, were not used. The remaining three were added to the original list of responsibility statements making a total of 46 which were included in a proposed list of statements about performance.

A second approach was also developed in which KSU graduates would evaluate their educational preparation on various foodservice management topics. A list of 24 topics was adapted from the questionnaire developed by Scheule (10) on the evaluation of the KSU Coordinated Undergraduate Program in Dietetics. This list was expanded to 30 topics in foodservice management by the research committee.

When reviewing and organizing the specific responsibility statements and foodservice systems management topics, the research committee noted duplication between the two. The committee recommended shortening the questionnaire by deleting statements and using topics for program evaluation. Identification of these topics as concepts was deemed more in harmony with the philosophy of the educational process. Accordingly, the change of nomenclature was made and 39 foodservice systems management concepts were identified for evaluation. These concepts and their sources are shown in Table 17, Appendix A. Scales were devised for evaluation of the concepts pertaining to relevance, KSU preparation, and competence gained from other sources.

Description of Instrument

A questionnaire for evaluation of the M.S. degree in Institutional Management was developed for submission to graduates of the

program. It consisted of three sections. Section I, Demographic Information, included reasons for choosing this program, and employment information on the first and present positions after the M.S. degree. Demographic questions were adapted from the Scheule study (10).

In Section II, Evaluation, three scales were devised for the evaluation of the concepts: Scale A: Relevance; Scale B: KSU Preparation; and Scale C: Competence Gained from Other Sources. Using Scale A, graduates were instructed to rate the relevance of individual concepts to present responsibilities.

Scale A: Relevance

- (1) Essential
- (2) Very important
- (3) Important
- (4) Of minor importance
- (5) Unrelated to my job.

Ratings using Scale B were requested on the quality of preparation for practice of each concept provided by the M.S. program in Institutional Management.

Scale B: KSU Preparation

- (1) Excellent: a distinct asset to me
- (2) Good: was an advantage to me
- (3) Satisfactory: room for improvement, but not a handicap
- (4) Inadequate: my performance suffered from poor preparation
- (5) Not included in my program
- (6) Not offered when I attended KSU.

Graduates were requested to rate using Scale C the amount of their competence in each concept gained from sources other than the graduate program, such as an undergraduate program, internship, continuing education, or job experience.

Scale C: Competence Gained from Other Sources

- (1) All, almost all
- (2) More than half
- (3) Half
- (4) Less than half
- (5) Hardly any.

In Section III, Comments, open-ended questions were developed to elicit remarks concerning the graduate program. A summative evaluation question was included in this section for graduates to rate their graduate education at KSU using the following scale: Excellent, Good, Average, and Poor.

Pilot Test

A pilot test was conducted to evaluate the questionnaire using eleven recent M.S. graduates in Institutional Management including one who also had a Ph.D. A questionnaire with a cover letter and an evaluation form (Appendix B) were mailed to the reviewers, and ten (91%) were returned. As a result of comments from the reviewers, the format of the three scale explanations was changed to correspond with the positions of the response columns on the questionnaire. Except for the rearrangement of the scales, no changes were recommended. The revised questionnaire was printed in a four page book format on buff-colored paper. The approximate completion time of 20 minutes also was determined. The research committee determined that an address form (Appendix B) with a separate pre-stamped, pre-addressed envelope could also be included with the questionnaire to update department files of graduates.

Distribution of Final Instrument

A cover letter and questionnaire (Appendix C) with a return envelope and also an address information form (Appendix B) with a separate return envelope were mailed to 111 M.S. graduates of which five were returned as not forwardable reducing the total to 105. Fifty-three questionnaires (50%) were completed and returned.

A follow-up letter (Appendix C), questionnaire, and address information form with two self-addressed, pre-stamped envelopes were sent three weeks later to 52 graduates living in the United States who had not responded. Twelve completed questionnaires were returned for a total of 65 (62%).

Efforts were made to contact the non-participants by telephone and three were not found, giving a sample total of 102 graduates. Fifteen questionnaires were returned resulting in a total of 80 (78.4%).

Data Analysis

Programs and routines in the Statistical Analysis System (SAS) (48) were used for most of the data analysis. The initial analysis included the compilation of frequencies for all demographic information in Section I, concept ratings in Section II, and the response to the overall rating in Section III.

Means were computed for all concept ratings for Scales A, B, and C in Section II and for the overall program rating in Section III. Before computing the means for Scale B: KSU Preparation, responses

"Not included in my program" and "Not offered when I attended KSU" were deleted and actual ratings for all scales were reversed to make higher scores represent more positive ratings.

The research committee assigned the foodservice management concepts of Section II to nine responsibility statements based on the foodservice systems management role delineation responsibility statements (11). Reliability of the scores was estimated using coefficient alpha from the Statistical Package for Social Sciences (SPSS) (49). Correlations among individual concept scores for relevance were compared to examine interrelationships using Pearson Product Moment Correlations (SAS) (48) and some concepts were re-categorized. A tenth statement was created because the concept, "consulting," did not correlate highly with any item in any statement. After reviewing the reliability and correlation results for ten statements, the research committee re-grouped the concepts into seven statements. Reliability estimates were again determined. Scores for further analysis were derived by averaging responses to the items in each statement; separate scores were computed from Scale A and Scale B data.

An analysis of variance model (2×2) was used to examine differences between date of graduation (1974-79 versus 1980-84) and prior foodservice experience (yes versus no) in the derived role delineation scores. The same 2×2 model was also used to examine differences between date of graduation (1974-79 versus 1980-84) and use of M.S. degree program as route to registration (yes versus no) in the derived role delineation scores.

RESULTS AND DISCUSSION

Characteristics of the Graduates

Year of Graduation

Data were collected from 80 (78.4%) of 102 graduates of the Master of Science degree program (M.S.) in Institutional Management from 1974 through 1984 at Kansas State University. A particular concern was that graduates should have had at least one year of experience at the time of answering the questionnaire. The distribution of graduates per year and percentage of responses by date of graduation are shown in Table 1.

The 1980 graduates had the highest response rate (91.7%) and the 1977 graduates the lowest (20%). At least two-thirds of all classes except 1977 responded. Variability in class size was noted, with the classes of 1975 and 1979 having the largest number of graduates.

Registration Status

Fifty-eight (72.5%) of the responding graduates were registered dietitians. Data in the 1984 Study Commission Report (25) indicated that a substantial number of dietitians used the advanced degree with qualifying experience as a route to registration. Thirty-eight (47.5%) graduates reported having attained eligibility through the M.S. degree.

Foodservice Experience

Graduates' prior foodservice work experience is shown in Table 2. The greatest number of respondents (40.8%) had between six months

Table 1. Percent of responses of graduates by year of graduation

year of graduation	number of graduates N = 102	number of responses N = 80	% of responses by year
1974	3	2	66.7
1975	14	12	85.7
1976	9	8	88.9
1977	5	1	20.0
1978	10	7	70.0
1979	17	13	76.5
1980	12	11	91.7
1981	8	6	75.0
1982	9	7	77.8
1983	8	7	87.5
1984	7	6	85.7
overall percentage			78.4

Table 2. Graduates' foodservice experience prior to beginning M.S. degree

experience	graduates	
	N	%
none	22	28.9
6 months - 3 years	31	40.8
greater than 3 years	23	30.3

and three years prior work experience; the remainder was divided almost equally between no foodservice experience and greater than three years. Some graduates with limited experience suggested in written comments that work experience coordinated with a graduate program would have been beneficial.

Reasons for Choosing the Program

Major reasons for choosing the KSU program are shown in Table 3. The two major reasons were lived in the area and excellent reputation.

Table 3. Major reason graduates chose M.S. degree program in Institutional Management at Kansas State University

reason	graduates	
	N	%
lived in the area	27	34.1
excellent reputation	18	22.8
advised by others	11	13.9
in-state tuition	4	5.1
financial aid available	1	1.3
combination of above	14	17.7
other	4	5.1

Additional Course Work and Degrees

Over half of the sample (52.5%) reported taking additional course work since earning an M.S. degree. The most popular areas for

additional course work were business, computers, clinical/general dietetics, nutrition, and education.

Only nine received an additional degree after the KSU M.S. degree. Three of the graduates (3.9%) reported earning another master's degree; six had earned doctorates, three of which were in education.

Employment Background

Responses concerning first and present positions related to the details of employment are shown in Tables 4, 5, and 6. The detailed disclosures in the tables will be separately discussed.

Position Titles

A consolidated list of titles taken from the responses is the definitive column of Table 4. Data indicate distribution of titles between first and present positions.

First Position. The majority of graduates reported three titles for the first position: administrative staff dietitian (18.7%), faculty/teaching dietitian (18.7%), and director (16.0%). Twelve (16.0%) accepted foodservice positions categorized as "other" which included food production manager, supervisor, banquet/cafeteria supervisor, foodservice worker, and kitchen manager. All of the graduates chose foodservice or dietetics positions for their first job after graduation.

Present Position. In the reported present employment positions, some shifts among categories were noted. The percent holding director

Table 4. Position title after M.S. degree and for present position

	first N = 75		present N = 76	
	N	%	N	%
director	12	16.0	14	18.4
asst. director	5	6.7	3	4.0
admin. staff dietitian	14	18.6	2	2.6
head clinical dietitian	-	-	1	1.3
clinical staff dietitian	6	8.0	3	4.0
generalist dietitian	5	6.7	3	4.0
community dietitian	-	-	2	2.6
private practice/ consultant	5	6.7	9	11.8
faculty/ teaching dietitian	14	18.6	11	14.5
military	2	2.7	2	2.6
other	12	16.0	12	15.8
non-dietetic/ foodsvc. position	-	-	4	5.3
not employed	-	-	10	13.1

positions had increased slightly (2.4%), and the percentage of graduates in private practice and consulting positions had almost doubled (6.7% to 11.8%). A decrease was noted in the percentage of graduates in faculty and teaching positions. A notable decrease occurred in the category of administrative staff dietitian, with only 2.6 percent of the graduates presently holding such positions. Four graduates (6.1%) were working in non-dietetic or foodservice positions and ten were not employed at the time of the study.

Type of Facility

First Position. The types of facilities for first and present positions are listed in Table 5. The highest percentage of graduates (32.9%) were employed in hospitals for their first position followed by college/ university academic units (19.2%) and college/ university foodservice (15.1%).

Present Position. Hospitals remained the primary place of employment for present positions; however, the percentage decreased to 22.9. A decline in the number of graduates currently employed in college/ university foodservice operations was noted. Places of employment which were not listed among graduates' first positions, but appeared among present places of employment, were government agencies and private practice offices.

Reasons for Leaving Position

First Position. Responses to the question, reasons for leaving the first position, were grouped into four categories: family related, work related, general, or had not left (Table 6). The responses were

Table 5. Types of facilities in first and present positions

facility	graduates			
	first position ¹		current position	
	N	%	N	%
hospital	24	32.9	14	22.9
nursing home	6	8.2	4	6.2
other health care facility	4	5.5	5	7.8
college/ university academic unit	14	19.2	12	18.8
college/ university foodservice	11	15.1	6	9.4
school foodservice	5	6.8	6	9.4
commercial/ industrial foodservice	2	2.7	2	3.1
government agency	-	-	4	6.2
private practice office	-	-	2	3.1
other	7	9.6	8	12.5
non-dietetic/ foodservice	-	-	1	1.6

¹Since earning M.S. degree.

virtually equally divided between the four categories. One-fourth of the graduates were presently employed in first positions. The largest percentage for any single reason was in the family related category for self or spouse transferred.

Table 6. Graduates' reasons for leaving first employment positions

reasons	graduates	
	N	%
family related:		
to raise a family	1	1.3
self/spouse transferred	15	20.0
work related:		
to accept better paying job	2	2.7
to accept job with better hours	1	1.3
wanted a different experience	2	2.7
wanted a more challenging job	2	2.7
did not like the work	1	1.3
promotion	6	8.0
job was temporary	2	2.7
better job	4	5.3
general:		
wanted to relocate	10	13.4
returned to school	3	4.0
joined military services	1	1.3
other	6	8.0
not applicable, currently in same position	19	25.3

Present Position. Questions pertaining to the present position included an item for those not presently employed. Graduates reported primarily family related reasons for not currently being employed.

Salary

Graduates were asked to supply salary information for their first and present positions with the option of refusal (Table 7). Responses were categorized according to full or part time employment and whether respondents graduated in the earlier (1974-1980) or later (1981-1984) years.

First Position. Of the thirty-eight graduates from the early years of the study who reported income for their first position, thirty-four (89.5%) were employed full time and most (58.8%) were earning between \$10,000 and \$14,999. The four (10.5%) working part time earned from less than \$10,000 to over \$20,000.

From the more recent graduates, thirty-one respondents (96.9%) reported full time income and one part time. Most graduates (61.3%) employed full time reported making \$15,000 to \$20,000. According to these data, most later graduates were earning more than their earlier counterparts for first positions.

Present Position. Table 7 also reports salary ranges for present positions. Twenty-one (70.0%) of the earlier and twenty-five (89.3%) of the later graduates reported income for full time employment. Of the earlier graduates, fifty-two percent were making \$20,000-\$29,999, while most (72.0%) in the later group of graduates reported earnings in that category. Almost half (42.9%) of the early graduates employed full time were earning \$30,000 or more in their present positions compared to only 12 percent of the later graduates earning that amount, which might be expected as the earlier graduates have

Table 7. Full and part time salaries for 1974-1984 graduates' first and present positions¹

salary range	year of graduation							
	1974-1979				1980-1984			
	full time		part time		full time		part time	
	N	%	N	%	N	%	N	%
first position:								
less than \$10,000	2	5.9	2	50.0	1	3.2	-	
\$10,000-\$14,999	20	58.9	1	25.0	6	19.4	-	
\$15,000-\$20,000	6	17.6	-		19	61.3	1	100.0
over \$20,000	<u>6</u>	17.6	<u>1</u>	25.0	<u>5</u>	16.1	<u>-</u>	
total	34		4		31		1	
present position:								
less than \$20,000	1	4.7	6	66.7	4	16.0	2	66.7
\$20,000-\$29,999	11	52.4	3	33.3	18	72.0	-	
\$30,000-\$40,000	6	28.6	-		2	8.0	1	33.3
over \$40,000 ²	<u>3</u>	14.3	<u>-</u>		<u>1</u>	4.0	<u>-</u>	
total	21		9		25		3	

¹Refusal option was specifically offered.

²Includes one graduate not in dietetic/ foodservice position.

been employed longer and have had more time to be promoted to higher paying jobs.

The number of graduates reporting part time employment increased from five for first position to 12 for present position. Four of the 12 graduates presently working part time were earning \$20,000 or more; only one of the graduates earned over \$20,000 for a part time first position. Overall, graduates' salaries compared very favorably with personal incomes of ADA members reported in the 1981 membership census (1) in which 71.3 percent earned less than \$20,000.

Evaluation of Foodservice Systems Management Concepts

Graduates were asked to evaluate 39 foodservice management concepts according to three scales: relevance, KSU preparation, and competence gained from other sources. The numerical responses on the questionnaires were reversed, and means and standard deviations were calculated for each concept for each scale using the Statistical Analysis System (48).

Relevance

The following five ranges for the ratings on Scale A: Relevance were established: essential = 4.00 - 5.00; very important = 3.00 - 3.99; important = 2.00 - 2.99; of minor importance = 1.00 - 1.99; and unrelated to my job = less than 1.00. Table 8 displays means and standard deviations for the foodservice management concepts grouped by ranges of the ratings.

Seven of the concepts received mean ratings in the "essential"

Table 8. Graduates' mean ratings¹ of foodservice systems management concepts for relevance with indicated ranges

concept	N	ratings	
		mean	S.D.
<u>essential (4.00 - 5.00):</u>			
problem solving/ decision making	64	4.45 ± 0.99	
written/ oral communications	64	4.44 ± 0.99	
personnel management	64	4.16 ± 1.21	
time management	64	4.09 ± 1.21	
cost control	64	4.08 ± 1.28	
sanitation/ health regulations	64	4.05 ± 1.35	
instructional techniques	64	4.03 ± 1.07	
<u>very important (3.00 - 3.99):</u>			
employee training	64	3.98 ± 1.25	
self evaluation	64	3.91 ± 1.09	
budget planning	64	3.88 ± 1.27	
nutrition requirements of consumers	64	3.88 ± 1.23	
quality control	63	3.86 ± 1.24	
menu planning	64	3.84 ± 1.36	
food production	64	3.83 ± 1.45	
management theory	64	3.75 ± 1.13	
purchasing/ procurement	64	3.73 ± 1.49	
employee evaluations	63	3.70 ± 1.29	

¹Scale = 1, unrelated to 5, essential.

Table 8. Graduates' mean ratings of foodservice systems management concepts for relevance with indicated ranges (cont.)

concept	N	ratings	
		mean	S.D.
job specifications and descriptions	64	3.69 ± 1.17	
safety regulations	64	3.64 ± 1.25	
quality assurance/ audits	64	3.63 ± 1.21	
organizational politics	63	3.62 ± 1.21	
promotion foodsvc. systems mgmt.	62	3.53 ± 1.29	
principles of merchandising	64	3.43 ± 1.14	
financial analysis techniques	64	3.41 ± 1.30	
distribution and service	64	3.39 ± 1.30	
dietetic services marketing	64	3.36 ± 1.34	
recipe standardization	64	3.33 ± 1.43	
computer applications	64	3.30 ± 1.23	
forecasting	63	3.27 ± 1.35	
consulting skills	64	3.23 ± 1.58	
equipment/ layout	64	3.22 ± 1.31	
capital budgeting	62	3.21 ± 1.38	
<u>important (2.00 - 2.99):</u>			
facility security	63	2.97 ± 1.29	
labor relations	64	2.92 ± 1.47	
legislative involvement	64	2.92 ± 1.25	
sensory analysis	63	2.86 ± 1.22	
industrial engineering techniques	64	2.80 ± 1.16	

Table 8. Graduates' mean ratings of foodservice systems management concepts for relevance with indicated ranges (cont.)

concept	N	ratings	
		mean	S.D.
foodservice research methods	64	2.53 ± 1.25	
inventory control	63	2.51 ± 1.42	

range. More than half of the concepts (N = 25) were rated "very important"; the remaining seven were "important." All the foodservice management concepts listed in the questionnaire, therefore, were rated as being relevant to the graduates' present professional responsibilities. Problem solving/ decision making and written/ oral communications clearly were the highest followed by personnel management.

Quite logically, employee training and self evaluation received the highest ratings in the "very important" category. These were followed closely by concepts related to operational management of resources essential to foodservice; e.g., food, employees, money, equipment, etc. The seven concepts indicated as "important" have not been stressed in the past in foodservice management education. These concepts are now being emphasized in undergraduate and graduate departmental curricula in compliance with the implications of role delineation studies. Although the list of subject areas evaluated in Scheule's study (10) was not identical to the list of concepts evaluated by M.S. degree graduates, the KSU coordinated undergraduate program graduates gave written/ oral communications and problem

solving/ decision making an "essential" relevance rating and personnel management was rated as "very important."

KSU Preparation

Graduates' ratings of foodservice management concepts on Scale B: KSU Preparation are found in Table 9. Ranges of ratings for evaluating KSU preparation were: excellent = 2.80 - 4.00; good = 2.30 - 2.79; satisfactory = 1.50 - 2.29; inadequate = less than 1.50. In order to achieve a rational distribution as was done arbitrarily with the five point scale A, this four point scale was ranged as indicated.

Not surprisingly, the same three concepts (problem solving/ decision making, written/ oral communications, and personnel management) rated highest for relevance also were rated among the highest on the KSU preparation scale. An interesting anomaly is the inclusion of industrial engineering techniques and foodservice research methods as "excellent" in KSU preparation but the lowest rating in the "important" category for relevance.

A distinct parallel in ratings exists between concepts rated as "good" for KSU preparation and "very important" for relevance. Financial considerations, marketing and merchandising, and quality control were rated "satisfactory" in preparation; whereas in relevance, these concepts were rated "very important."

Competence Gained from Other Sources

Graduates were also asked to indicate on Scale C: Competence Gained from Other Sources, using a five-point rating, the amount of competence in these concepts gained from sources other than graduate

Table 9. Graduates' mean ratings¹ of KSU educational preparation with indicated ranges

concept	N	ratings	
		mean	S.D.
<u>excellent (2.80 - 4.00):</u>			
management theory	76	3.36 ±	.08
industrial engineering techniques	50	3.22 ±	.81
written/ oral communications	68	2.96 ±	.95
personnel management	70	2.89 ±	.86
problem solving/ decision making	76	2.88 ±	.76
foodservice research methods	70	2.86 ±	.87
purchasing/ procurement	71	2.82 ±	.86
recipe standardization	54	2.80 ±	.88
<u>good (2.30 - 2.79):</u>			
time management	59	2.75 ±	.84
food production	55	2.73 ±	.83
nutrition requirement of consumers	46	2.72 ±	1.03
menu planning	51	2.71 ±	.81
job specifications and descriptions	66	2.68 ±	.81
labor relations	52	2.67 ±	.83
sanitation and health regulations	57	2.67 ±	.81
sensory analysis	44	2.66 ±	.66
quality control	67	2.64 ±	.69

¹Scale = 1, inadequate to 4, excellent.

Table 9. Graduates' mean ratings of KSU educational preparation with indicated ranges (cont.)

concept	N	ratings	
		mean	S.D.
instructional techniques	65	2.63 ±	.89
inventory control	64	2.63 ±	.81
forecasting	63	2.57 ±	.76
employee evaluations	60	2.57 ±	.85
self evaluation	57	2.56 ±	.82
employee training	66	2.53 ±	.79
distribution and service	65	2.51 ±	.71
equipment/ layout	51	2.49 ±	.90
promotion of foodservice systems mgmt.	52	2.48 ±	.92
computer applications	55	2.42 ±	.85
consulting skills ²	35	2.40 ±	.91
organizational politics	53	2.40 ±	1.01
cost control	68	2.37 ±	.81
safety regulations	54	2.33 ±	.70
legislative involvement ²	35	2.31 ±	.75
<u>satisfactory (1.50 - 2.29):</u>			
budget planning	61	2.21 ±	.78
principles of merchandising	46	2.15 ±	.84

²Over 50% of sample indicated that concept was either not offered or not included in their program of study.

Table 9. Graduates' mean ratings of KSU educational preparation with indicating ranges (cont.)

concept	N	ratings	
		mean	S.D.
quality assurance/ audits	49	2.14 ±	.71
financial analysis techniques	50	2.08 ±	.88
dietetic services marketing ²	35	2.06 ±	.76
facility security ²	31	1.98 ±	.60
capital budgeting	44	1.84 ±	.61

school; i.e., undergraduate program, internship, continuing education, or job experience. Three ranges of ratings were established: more than half from other sources = 3.50 - 5.00; half from other sources = 2.50 - 3.49; and less than half from other sources = 1.50 - 2.49 (Table 10).

Only nine concepts were identified in which more than half of the graduates' competence was gained from other sources. Competence in food production, sanitation and health regulations, and menu planning were most frequently gained elsewhere. Graduates indicated about half of their competence was gained from other sources in many of the concepts (N = 27). The lowest concepts on Scale C were industrial engineering techniques and foodservice research techniques which were lowest in relevance but excellent in KSU preparation and ratings. This finding is similar to graduate competencies identified by Seal et al. (6), which included industrial engineering techniques and

Table 10. Graduates' mean ratings¹ of foodservice systems management concept competence gained from other sources with indicated ranges

concept	N	ratings	
		mean	S.D.
<u>more than half from other sources (3.50+):</u>			
food production	76	3.89 ± 1.18	
sanitation and health regulations	75	3.79 ± 1.11	
menu planning	76	3.70 ± 1.28	
employee training	77	3.61 ± 1.19	
job specifications and descriptions	77	3.60 ± 1.15	
safety regulations	76	3.59 ± 1.18	
facility security	75	3.53 ± 1.45	
employee evaluations	77	3.52 ± 1.29	
inventory control	76	3.50 ± 1.26	
<u>half from other sources (2.50 - 3.49):</u>			
nutrition requirements of consumers	77	3.49 ± 1.37	
organizational politics	75	3.45 ± 1.41	
quality assurance/ audits	74	3.43 ± 1.44	
self evaluation	75	3.39 ± 1.23	
distribution and service	77	3.38 ± 1.14	
personnel management	75	3.35 ± 1.17	
instructional techniques	77	3.34 ± 1.18	
principles of merchandising	77	3.34 ± 1.30	

¹Scale = 1, hardly any to 5, all, almost all.

Table 10. Graduates' mean ratings of foodservice systems management concept competence gained from other sources with indicated ranges (cont.)

concept	N	ratings	
		mean	S.D.
recipe standardization	77	3.32 ± 1.49	
quality control	75	3.31 ± 1.25	
time management	77	3.30 ± 1.11	
problem solving/ decision making	77	3.30 ± 1.03	
forecasting	76	3.28 ± 1.33	
written/ oral communications	77	3.27 ± 1.13	
budget planning	75	3.25 ± 1.32	
purchasing/ procurement	77	3.25 ± 1.28	
equipment/ layout	76	3.21 ± 1.45	
cost control	77	3.21 ± 1.21	
computer applications	75	3.01 ± 1.66	
legislative involvement	77	2.99 ± 1.46	
financial analysis techniques	77	2.97 ± 1.45	
dietetic services marketing	74	2.96 ± 1.57	
promotion of foodservice management	73	2.84 ± 1.28	
consulting skills	75	2.76 ± 1.49	
capital budgeting	75	2.71 ± 1.50	
labor relations (unions)	76	2.70 ± 1.52	
sensory analysis	75	2.59 ± 1.54	

Table 10. Graduates' mean ratings of foodservice systems management concept competence gained from other sources with indicated ranges (cont.)

concept	N	ratings	
		mean	S.D.
<u>less than half from other sources (1.50 - 2.49):</u>			
management theory	77	2.31 ±	.98
industrial engineering techniques	76	2.16 ±	1.34
foodservice research methods	76	1.63 ±	1.00

foodservice research methods as graduate level competencies. The relatively low rating of these concepts in relevance may be attributed to the graduates' lack of appreciation of the logical processes enhanced by both of these concepts.

Relationship of Concepts to Role Delineation

Categorization of Concepts

As described in the methodology, the research committee originally categorized the 39 foodservice management concepts into nine major responsibility statements in the foodservice systems management role delineation study (12) as shown in Table 18, Appendix D. Because role delineation statement 7 (RD7) includes such a large number of foodservice system resources, it was divided into two parts: 1) human resources, and 2) material, physical, and operational resources.

Relevance scores were obtained by averaging ratings from Scale A: Relevance for each concept (refer to Table 8). Reliability of concepts in the nine major responsibility statements was analyzed using coefficient alpha (Table 18, Appendix D). The nine categories had alpha values ranging from 0.25 to 0.90. The first four statements showed alpha values lower than 0.40, which is considered the minimum acceptable level for internal consistency. Concepts in statements with low alpha scores, therefore, were reassigned to others with stronger concept correlations.

As a result of the reassignment, the first four role delineation statements contained only one concept each. A separate responsibility statement was established for the concept consulting skills and identified as RD10 because it did not correlate highly with any other concepts. The two groupings of concepts in statement RD7 were recombined (Table 19, Appendix D). The five statements containing multiple concepts and with high alpha ratings are shown in Table 11.

Correlations for the ten role delineation responsibility statements are shown in Table 12. The research committee decided that statements with strong correlations should be combined. Statements 5 through 8, which relate to operational aspects of foodservice systems management were highly correlated and were combined into one designated as RD5678. Table 20 (Appendix D) shows the 7 modifications and correlation coefficients are shown in Table 13.

Table 11. Responsibility statements containing multiple concepts with high internal consistency

responsibility statements ¹	coefficient alpha
5. Utilizes menu as the focal point in overall control processes for foodservice system	.83
6. Manages foodservice subsystems, including procurement, food production, food distribution and service	.92
7. Manages foodservice system resources, including human, material, physical, and operational resources	.92
8. Manages Quality Assurance (QA) Program for area of responsibility	.72
9. Advocates action which advances foodservice systems management and improves nutrition status of consumers	.51

¹Refer to Table 19, Appendix D for concepts in each responsibility statement.

Table 12. Correlation coefficients for the revised individual role delineation responsibility statements for relevance (Scale A)

	RD1	RD2	RD3	RD4	RD5	RD6	RD7	RD8	RD9	RD10
RD1	1.00									
RD2	.27	1.00								
RD3	.05	.23	1.00							
RD4	-.05	.00	.26	1.00						
RD5	.28	.18	.24	-.07	1.00					
RD6	.12	.10	.20	.14	.83	1.00				
RD7	.18	.22	.34	.18	.82	.82	1.00			
RD8	.14	.19	.26	.10	.80	.72	.74	1.00		
RD9	.12	.38	.39	.51	.31	.34	.54	.37	1.00	
RD10	.10	.18	.23	.23	-.05	-.02	-.03	-.12	.13	1.00

Table 13. Correlations of revised role delineation responsibility statements for relevance

	RD1	RD2	RD3	RD4	RD5678	RD9	RD10
RD1	1.00						
RD2	0.27	1.00					
RD3	0.05	0.23	1.00				
RD4	-0.05	0.00	0.26	1.00			
RD5678	0.18	0.19	0.30	0.15	1.00		
RD9	0.12	0.38	0.39	0.50	0.48	1.00	
RD10	0.10	0.18	0.23	0.23	-0.04	0.13	1.00

Mean Ratings for Relevance and Educational
Preparation for Roles

Mean ratings of role delineation responsibility statements for relevance are presented in Table 14. (Abbreviated titles for each statement are shown in Table 20, Appendix D.) The highest rated of these "very important" categories were self evaluation (RD2) and client focus (RD1). Advocacy and consulting had the lowest ratings but were still within the "very important" group. Foodservice research methods (RD4) received the lowest ratings but was still considered "important."

Table 14. Mean ratings for relevance of concepts in each role delineation responsibility statement with indicated ranges

role delineation statement ¹		N	mean	S.D.
<u>very important (3.00 - 4.00):</u>				
RD2	self evaluation	64	3.91 ± 1.09	
RD1	client focus	64	3.86 ± 1.22	
RD5678	operations	64	3.63 ± .85	
RD3	organizational politics	63	3.62 ± 1.21	
RD9	advocacy	64	3.26 ± .92	
RD10	consulting	64	3.23 ± 1.58	
<u>important (2.00 - 2.99):</u>				
RD4	research methods	64	2.53 ± 1.25	

¹Refer to Table 20 (Appendix D) for complete statement.

Mean ratings of adequacy of KSU educational preparation are presented in Table 15. Educational preparation for foodservice research methods (RD4) was rated as "excellent," and all others were rated "good."

Table 15. Mean ratings of KSU educational preparation for role delineation concept categories

role delineation statement ¹		N	mean	S.D.
<u>excellent (2.80 - 4.00):</u>				
RD4	foodservice research methods	70	2.86 ±	.87
<u>good (2.30 - 2.79):</u>				
RD1	client focus	46	2.72 ±	1.02
RD5678	operations	77	2.63 ±	.44
RD2	self evaluation	57	2.56 ±	.82
RD3	organizational politics	53	2.40 ±	1.00
RD10	consulting	35	2.40 ±	.91
RD9	advocacy	60	2.33 ±	.76

¹Refer to Table 20 (Appendix D) for complete statement.

The order of mean ratings for relevance and KSU preparation for each role, is similar except foodservice research methods (RD4) which received the lowest rating for relevance but the highest rating for educational preparation. Self-evaluation (RD2) received a high rating for relevance but a somewhat lower rating for educational preparation.

Analysis of Role Delineation Relevance Ratings

Analysis of relevance scores was conducted using two way analysis of variance (2×2) models. For the first analysis, date of graduation (1974-79 or 1980-84) and use of master's degree for registration eligibility (yes or no) were independent variables in the model. In the second analysis, work experience (yes or no) and date of graduation (1974-79 or 1980-84) were independent variables.

No significant differences were found from effects of date of graduation on any relevance scores, nor were any of the interactions significant. The one significant rating found in this analysis was client focus, RD1, rated higher by graduates who used a master's degree for registration eligibility (Table 21, Appendix D).

The effect of prior foodservice experience and date of graduation on role delineation relevance scores also was examined. No significant effect of prior foodservice experience on relevance scores was noted. Early graduates rated the relevance of operational responsibilities, RD5678, significantly lower than later graduates. The interaction of prior foodservice experience and date of graduation also was significant for client focus, RD1, as shown in Table 22, Appendix D. Of those with experience, early graduates rated this responsibility statement significantly higher than did later graduates; the opposite occurred for those without prior experience.

Analysis of Role Delineation Preparation Ratings

Analysis of the adequacy of KSU preparation in role delineation concept statements was conducted using two way analysis of variance (2×2) models similar to those used to analyze relevance scores. Graduates using their degree for registration eligibility rated KSU preparation for self evaluation, RD2, and advocacy of food-service systems management, RD9, significantly lower than graduates who were not seeking registration status (Table 23). A significant interaction was noted between graduation date and use of degree for registration eligibility in examining the preparation score for client focus, RD1, among those who need the degree for registration. Early graduates were more positive than later graduates; among those not using the degree for registration, the opposite occurred.

The effect of prior foodservice experience and date of graduation on role delineation concept scores for KSU preparation also was examined. No significant differences were found among these scores, nor were any of the interactions significant.

Comments

Rating of Graduate Education

Graduates were asked to rate their KSU graduate education by checking a descriptive word in the list: excellent, good, average, and poor. Approximately 86 percent of the graduates rated their education above average with 37 percent "excellent" and 49 percent "good" (Table 16). Numerical ratings were created by applying the following

scale; excellent = 4, good = 3, average = 2, and poor = 1. These numerical values yielded an overall mean rating of 3.22 with a standard deviation of ± 0.71 .

Table 16. Graduates' overall rating of KSU master's degree program in Institutional Management

scale	graduates	
	N	%
excellent	29	37.2
good	38	48.7
average	10	12.8
poor	1	1.3

Desirable Additional Concepts

In response to the query of what additional concepts graduates would desire in their M.S. program if currently enrolled in KSU, computer applications was the most frequently named. Such a response is not totally unexpected as many of the graduates finished their degrees before computer use had become so prevalent. Other concepts requested for graduate study were budgeting, marketing, quality assurance, financial planning and analysis, cost control, labor relations, and merchandising dietetics. Some concepts mentioned less frequently, but more than once, were administration, consulting skills, counseling, and motivational techniques.

Omitted Concepts

Concepts listed by graduates did not include any which were completely absent from their programs. Instead, the concepts named were those associated with experience changes in practice including: advanced budgeting and financial planning, equipment repair and maintenance, dealing with corporations, techniques of catering, knowledge of government related food programs, self studies prior to inspection, and coping with changing healthcare regulations. This graduate program is definitely Institutional Management and the concepts in the questionnaire were so related. Some of the respondents deemed more diet therapy as desirable which is indicative of broader responsibilities for those in some managerial positions.

Other Comments

Graduates were given the opportunity to make specific comments about their graduate education at KSU and approximately half responded. Overall comments were constructive and positive. All comments were compiled anonymously and distributed to graduate faculty for consideration.

SUMMARY AND CONCLUSIONS

Acquiring a master's degree is becoming more prevalent among dietetic practitioners. In 1981, The American Dietetic Association (ADA) membership census (1) revealed that almost 40 percent of members either held or were working toward a master's degree as opposed to only 20 percent in 1961 (2). Since 1959, an advanced degree in a related field which met ADA academic requirements (currently Plan IV) in conjunction with the completion of a six month qualifying experience could also serve as a route to ADA membership.

Members of the Foodservice Systems Management Education Council (FSMEC) have shown interest and encouraged research (6) concerning graduate education in foodservice systems management since 1977. At Kansas State University, a number of investigations on competency development and program evaluation have been conducted on both undergraduate and graduate programs. Growth in numbers of students returning for graduate degrees in order to meet academic requirements of Plan IV has stimulated evaluation of the Master of Science (M.S.) degree program at KSU.

The purpose of this research was to evaluate the graduate program in Institutional Management at KSU by surveying graduates from 1974 through 1984 employed in some area of dietetics or foodservice systems management. Eighty (78.4%) of the 102 graduates responded.

The evaluation instrument included reference scales on relevance, KSU preparation, and competence gained from other sources for application to foodservice systems management concepts. From research

by Scheule (10), Seal et al. (6), and the responsibility statements of the role delineation study in foodservice systems management (12), 39 concepts were selected. The questionnaire contained a demographic section including questions on registration status, additional education, reasons for selecting program, and first and present employment history. Graduates were given the opportunity to make comments and suggestions about their master's degree program and to rate their graduate experience overall. A pilot test of the research instrument was conducted prior to the study.

Fifty-eight (72.5%) of the responding graduates were registered dietitians. Almost half of the sample (47.5%) reported using their master's degree to earn registration eligibility. Most of the respondents (40.8%) had between six months and three years prior work experience. The remainder of respondents was divided almost equally between having no foodservice experience and having more than three years.

"Lived in the area" was the most common reason given by graduates for choosing the program. Almost one-fourth (22.8%) of the graduates replied that the program's excellent reputation was their primary reason for attending Kansas State University.

Over half of the sample (52.5%) reported taking additional course work since earning an M.S. degree; however, only nine respondents reported earning additional degrees. Three of the graduates (3.9%) earned another master's degree and six (7.7%) earned doctoral degrees predominantly in the area of education.

All graduates cited foodservice or dietetic positions as their

first job after graduation. Positions taken by the highest percentages of graduates were administrative staff dietitian (18.7%), faculty/teaching dietitian (18.7%), and director (16.0%).

Responses showed changes in positions from initial to present employment. Number of directors had slightly increased, and the percentage of graduates in private practice and consulting positions had doubled. A notable decrease of graduates employed as administrative staff dietitians occurred. Twelve percent of graduates were unemployed primarily for family-related reasons and six percent were employed in non-dietetic/foodservice positions.

Hospitals were the primary places of employment for graduates' first (32.9%) and present (22.9%) positions. College/university academic units and college/university foodservices were reported by many graduates as places of employment for first positions, but a decline occurred for present position. Government agencies and private practice offices which did not appear as first places of employment were given as present employment locations.

Reasons for leaving first position were divided almost equally among family related, work related, or general and an equal number had not left. Approximately 25.3% of the graduates were presently employed in their initial position and those not currently employed reported primarily family related reasons.

Salary information was requested with a no response option and categorized according to full or part time positions and date of graduation for first and present positions. Most graduates accepted full time positions for their first jobs. In the early group, most

(58.8%) full time salaries were \$10,000-\$14,999; and, in the later group, most (61.3%) full time salaries were \$15,000-\$20,000 for first positions. For present positions, most graduates, early and late, working full time were earning \$20,000-\$29,000.

Graduates were asked to evaluate thirty-nine foodservice systems management concepts according to three scales: relevance, KSU preparation, and competence gained from other sources. In terms of relevance, seven of the concepts were rated as "essential"; however, most of the concepts were rated "very important" and the remaining concepts received mean ratings of "important." Those concepts receiving the highest ratings for relevance were problem/ decision making, written/ oral communications, and personnel management.

Graduates' KSU preparation was rated "excellent" for eight of the foodservice management concepts. Management theory and industrial engineering techniques received the highest ratings, and problem solving/ decision making, written/ oral communications, and personnel management were also rated among the highest. Most of the remaining concepts were rated as "good" and seven as "satisfactory." An area of concern is that concepts of budget planning, principles of merchandising, quality assurance/ audits, financial analysis techniques, dietetic services marketing, and capital budgeting received only "satisfactory" ratings in KSU preparation, but were rated as "very important" on the relevance scale.

Graduates indicated that about half of their competence was gained from other sources in most of the management concepts. Only nine concepts were identified in which more than half of the

graduates' competence was gained from other sources with food production, sanitation and health regulations, and menu planning being most commonly gained elsewhere. Those concepts which were less likely to be learned from other sources were management theory, industrial engineering techniques, and foodservice research methods.

The thirty-nine foodservice systems management concepts were categorized according to their association with the major performance responsibility statements of the role delineation study for foodservice systems management (12). Seven role delineation statements were categorized: RD1, client focus; RD2, self evaluation; RD3, organizational politics; RD4, research methods; RD5678, operations; RD9, advocacy; and RD10, consulting.

Mean ratings were determined for the seven role delineation statements for relevance and KSU preparation. All roles were rated very important for relevance except RD4, research methods, which was rated as important. Foodservice research methods, RD4, was the only statement receiving an "excellent" rating for KSU preparation and all others received a "good" rating.

Role delineation concept scores for relevance were analyzed according to date of graduation and use of M.S. degree for registration eligibility. Graduates who used their M.S. degree for registration eligibility rated only RD1, client focus, significantly higher than did those who had not used their degree for registration. No significant differences were found from effects of date of graduation on any role delineation relevance scores, nor were interactions significant. The effect of prior foodservice experience and date of

graduation on role delineation relevance scores was examined. No significant effect of prior foodservice experience was noted. Early graduates did rate the relevance of RD5678, operational responsibilities, significantly lower than late graduates. The interaction of prior foodservice experience and date of graduation was significant for only one role delineation statement, RD1, client focus.

Role delineation concept scores for KSU preparation were also analyzed according to date of graduation and use of a M.S. degree for registration eligibility and date of graduation and prior foodservice experience. Graduates using their degree for registration eligibility rated KSU preparation for RD2, self evaluation, and RD9, advocacy of foodservice systems management, significantly lower than graduates who were not seeking registration status. A significant interaction was noted between date of graduation and use of degree for registration eligibility for RD1, client focus. The effect of date of graduation and prior foodservice experience yielded no significant differences on role delineation concept scores for KSU preparation.

Graduates gave their graduate education an overall mean rating of 3.22 on a scale of 4, excellent, to 1, poor. Graduates commented that if currently enrolled, they would desire an emphasis on computer applications primarily followed by: budgeting, marketing, quality assurance, financial planning and analysis, cost control, labor relations, and merchandising dietetics. Graduates were given the opportunity to make specific comments about their graduate education at KSU and approximately half responded. These comments were compiled anonymously and distributed to graduate faculty for consideration.

In conclusion, all concerned have agreed that this research demonstrated role delineation responsibility statements in foodservice systems management, and especially business related concepts, have positive relevance to professional practice. The conclusion of immediate concern is graduates of the Master of Science degree program in Institutional Management at Kansas State University from 1974 through 1984 evaluated their graduate education favorably and the concepts presented in their graduate programs were relevant to their present professional roles.

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APPENDIXES

APPENDIX A

Sources of Foodservice Systems Management Concepts

Table 17. Sources of foodservice systems management concepts

concept	role delin- eation ¹	Seal ²	Scheule ³	research committee ⁴
1. food production	6	18	1	
2. recipe standardization	6	14	2	
3. menu planning	5	21	3	
4. sensory analysis	6			X
5. sanitation and health regulations	7	22	5	
6. purchasing/ procurement	6	13	6	
7. equipment/ layout	7	58	7	
8. budget planning	7	37	8	
9. cost control	7	(39)	9	
10. labor relations (unions)	7	4	10	
11. personnel management	7	15,16,33	11	
12. management theory	7	1	12	
13. computer applications	7	59	13	
14. quality assurance/ audits	8		26	
15. written/ oral communications	7	55,56,57	27	

¹Role delineation major responsibility statement number (12).

²Seal competency statement number (6).

³Scheule topic list number (10).

⁴Added by research committee.

Table 17. Sources of foodservice systems management concepts (cont.)

concept	role delin- eation	Seal	Scheule	research committee
16. instructional techniques	7		28	
17. industrial engineering techniques	7	24		
18. dietetic services marketing	9		29	X
19. time management	7	45,51	30	
20. problem solving/ decision making	7	27,35	31	
21. foodservice research methods	4	2,60		
22. capital budgeting	7	(7)		X
23. consulting skills				X
24. organizational politics	3	29		
25. nutrition requirements (of consumers)	1	(20)	15,16	
26. principles of merchandising	(7)	23		X
27. forecasting	6	25		X
28. inventory control	6	30		X
29. quality control	8	(34)		
30. employee training	7	41		
31. employee evaluations	7	54		
32. self evaluation	2			X
33. Facility security	7			X

Table 17. Sources of foodservice systems management concepts (cont.)

concept	role delin- eation	Seal	Scheule	research committee
34. safety regulations	7			
35. distribution and service	6	34		
36. job specifications and descriptions	7	42,46		
37. financial analysis techniques		38		X
38. promotion of foodservice management	9			X
39. legislative involvement	9			X

APPENDIX B

Correspondence, Evaluation Form, and Address Form
for Pilot Test

(KSU Letterhead)

February 4, 1986

Dear :

You know, as a recent graduate of the Master's degree program in Institutional Management, that very little research has been conducted on graduate programs in foodservice management. We plan to survey graduates of the KSU Master's degree program in Institutional Management from 1974 through 1984 for purposes of program evaluation and possible revisions.

We are asking the 1985 graduates to participate in a pilot study to determine the effectiveness of the enclosed survey instrument which pertains to certain basic concepts. Your responses will not be individually identified and will be used solely by the researchers to revise the instrument for the study. Please complete the proposed questionnaire and observe the time required for completion. Also, we will appreciate your comments on the enclosed "hot pink" evaluation form. Return the questionnaire and evaluation form as soon as possible in the enclosed self-addressed prepaid envelope.

Thank you for your assistance in this research project.

Sincerely,

Mary C. Ecklund, R.D.
Graduate Student

Marian C. Spears, Ph.D., R.D.
Professor & Head, Dietetics, Restaurant,
& Institutional Management

jj

Enclosures

KANSAS STATE UNIVERSITY

Department of Dietetics, Restaurant and Institutional Management

QUESTIONNAIRE EVALUATION

1. Were the directions on the questionnaire clear?

 yes no

If no, please indicate suggestions for revisions.

2. Were the response scales clear?

Scale A yes no

Scale B yes no

Scale C yes no

If no, please identify the scales you believe were unclear and give your suggestions for revisions.

3. What other suggestions do you have for revising the questionnaire?

 None

 Some specific suggestions are:

4. Approximately how much time was required to complete the questionnaire? minutes

5. Other comments:

THANK YOU FOR YOUR TIME AND PARTICIPATION!

DEPARTMENT OF DIETETICS, RESTAURANT, AND INSTITUTIONAL MANAGEMENT

Graduate of Master's Program

Address information:

Date _____

Name _____

Title _____

Business Address _____

_____ Zip

Phone _____ AC

Home Address _____

_____ Zip

Phone _____ AC

APPENDIX C

Correspondence and Final Instrument

(KSU Letterhead)

March 12, 1986

Dear Former Graduate Student:

At Kansas State University, current research is in progress on evaluation of the effectiveness of the master's degree program in Institutional Management. The study is concerned with perceptions of the relevance of specific foodservice management concepts to present professional responsibilities, evaluation of the quality of KSU educational preparation for practice, and identification of other possible sources of competence. The information provided by you will be very valuable for maintaining and improving the effectiveness of our graduate program.

We are asking that you complete the enclosed questionnaire which should require only 15-20 minutes of your time. The questionnaire is identified by code number and used only for research, thus ensuring confidentiality. Please return the questionnaire in the self-addressed pre-stamped envelope by April 2.

In order to update our graduate file, please complete the blue one-half page form requesting your business and home addresses and telephone numbers and return in the separate envelope.

As a graduate of the KSU master's degree program in Institutional Management, your response will be valuable in efforts to improve the effectiveness of the Institutional Management graduate program. Thank you for your time and participation in this research project.

Sincerely,

Mary C. Ecklund, R.D.
Graduate Student

Marian C. Spears, Ph.D., R.D.
Professor and Head,
Dietetics, Restaurant &
Institutional Management

(KSU Letterhead)

April 9, 1986

Dear Former Graduate Student:

You should have received a questionnaire approximately one month ago for a study being conducted at Kansas State University to evaluate our master's degree program in Institutional Management. The study includes the graduates' perceptions of the relevance of specific foodservice management concepts to current professional responsibilities, evaluation of the quality of KSU educational preparation for practice, and identification of other sources of competency. As a master's graduate, your input will be very valuable for analyzing and improving the effectiveness of the KSU graduate program.

If you have completed the questionnaire and returned it, thank you! In case you did not receive the mailing, we have enclosed another questionnaire which should require only 15-20 minutes of your time. The questionnaire is identified by code number and used only for research, thus ensuring confidentiality. Please return the completed questionnaire in the self-addressed pre-stamped envelope by April 23.

Also, to update the graduate file, please complete the blue one-half page form requesting your business and home addresses and telephone numbers and return in the separate envelope.

As a graduate of the KSU master's degree program in Institutional Management, your response will be valuable in efforts to improve the effectiveness of the Institutional Management graduate program. Thank you for your time and participation in this research project.

Sincerely,

Mary C. Ecklund, R.D.
Graduate Student

Marian C. Spears, Ph.D., R.D.
Professor and Head
Dietetics, Restaurant &
Institutional Management



Department of Dietetics, Restaurant
and Institutional Management

Justin Hall
Manhattan, Kansas 66506
913-532-5521

EVALUATION OF KSU MASTER'S DEGREE PROGRAM IN INSTITUTIONAL MANAGEMENT

Please complete this survey based on your M.S. degree program in Institutional Management.

Section I. Demographic Information

1. Please indicate the year you:

(a) received your M.S. degree from this
department

1974	1978	1982
1975	1979	1983
1976	1980	1984
1977	1981	

(b) accepted your first professional
position after M.S. degree

1974	1978	1982
1975	1979	1983
1976	1980	1984
1977	1981	

2. Are you a Registered Dietitian?
yes no

3. Did you pursue a M.S. degree for
registration eligibility?
yes no

4. How many years of foodservice experience
did you have prior to beginning a
M.S. degree? years

5. What was the major reason you chose
the graduate program offered at KSU?
Excellent reputation
Advised by others
Lived in the area
Financial aid available
In-state tuition
Other, explain

6. Have you taken any course work since
earning your M.S. degree?
yes; in what area?
no

7. Have you received any additional degrees
since earning your M.S. degree?
yes; please specify
no

8. Please complete the following sections
concerning your first position after M.S.
degree and your present employment status.

I. First position:

a. Employment dates: from to
mo/yr mo/yr

b. Full time Part-time
(less than 35 hrs./wk.)

c. Position title

d. Type of facility

e. Primary reason for leaving

II. Present position: (If not presently
employed, see item e.)

a. Employment dates: from to
mo/yr mo/yr

b. Full time Part-time
(less than 35 hrs./wk.)

c. Position title

d. Type of facility

e. Primary reason for unemployment

9. The following information regarding annual
salary would be helpful, but if you prefer
to omit the question, please do so.

a. Approximate starting salary for first
position after earning M.S. degree:
less than \$10,000
\$10,000-\$14,999
\$15,000-\$20,000
over \$20,000

b. Approximate salary for present position:
less than \$20,000
\$20,000-\$29,999
\$30,000-\$40,000
over \$40,000

Section II. Evaluation

The following concepts have been included in many courses of the M.S. degree program in Institutional Management at Kansas State University. Based on your experience, please evaluate these concepts using Scales A, B, and C.

Scale A: Relevance

How important is this concept to your present professional responsibilities?

- (1) Essential
- (2) Very important
- (3) Important
- (4) Of minor importance
- (5) Unrelated to my job

Scale B: KSU Preparation

Rate the quality of the educational preparation for practice of this concept provided by the M.S. program in Institutional Management.

- (1) Excellent: a distinct asset to me
- (2) Good: was an advantage to me
- (3) Satisfactory: room for improvement, but not a handicap
- (4) Inadequate: my performance suffered from poor preparation
- (5) Not included in my program
- (6) Not offered when I attended KSU

Scale C: Competence Gained From Other Sources

How much of your competence in this concept was gained from other sources (i.e., undergraduate program, internship, continuing education, or job experience)?

- (1) All, almost all
- (2) More than half
- (3) Half
- (4) Less than half
- (5) Hardly any

CIRCLE THE APPROPRIATE NUMBER FOR YOUR RESPONSE

<u>CONCEPT</u>	<u>Scale A Relevance</u>	<u>Scale B KSU Preparation</u>	<u>Scale C Gained From Other Sources</u>
1. Food production	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
2. Recipe standardization	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
3. Menu Planning	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
4. Sensory analysis	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
5. Sanitation and health regulations.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
6. Purchasing/ procurement	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
7. Equipment/ layout.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
8. Budget planning	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
9. Cost control	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
10. Labor relations (unions)	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
11. Personnel management	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
12. Management theory	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
13. Computer applications.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5

<u>CONCEPT</u>	<u>Scale A Relevance</u>	<u>Scale B KSU Preparation</u>	<u>Scale C Gained From Other Sources</u>
14. Quality assurance/ audits. . . .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
15. Written/ oral communications . . .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
16. Instructional techniques	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
17. Industrial engineering techniques. .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
18. Dietetic services marketing . . .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
19. Time management	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
20. Problem solving/ decision making . .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
21. Foodservice research methods . . .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
22. Capital budgeting.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
23. Consulting skills.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
24. Organizational politics	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
25. Nutrition requirements (of consumers)	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
26. Principles of merchandising	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
27. Forecasting	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
28. Inventory Control.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
29. Quality control	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
30. Employee training.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
31. Employee evaluations	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
32. Self evaluation	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
33. Facility security.	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
34. Safety regulations	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
35. Distribution and service	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
36. Job specifications and descriptions .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
37. Financial analysis techniques. . .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
38. Promotion of foodservice management .	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5
39. Legislative involvement	1 2 3 4 5	1 2 3 4 5 6	1 2 3 4 5

Please Turn Over to Complete Questionnaire

Section III. Comments

1. How would you rate your graduate education at KSU?

 Excellent

 Good

 Average

 Poor (could be greatly improved)

2. If you were currently enrolled in your M.S. degree program, what additional concepts would you include?

3. Have we omitted any concepts which are essential to your position?
If so, would you specify these?

4. Please make any other comments or suggestions concerning your M.S. degree program of study at KSU.

THANK YOU VERY MUCH FOR YOUR TIME AND PARTICIPATION!

APPENDIX D

Supplemental Tables

Table 18. Reliability of concept scores for relevance for originally assigned nine role delineation responsibility statements

responsibility statements concepts	coefficient alpha
1. Focuses foodservice operations on nutrition goals of target market nutrition requirements (of consumers) principles of merchandising	.29
2. Advances practitioner competence self evaluation	-
3. Promotes positive working relationships with others written/ oral communications consulting skills organizational politics	.33
4. Utilizes current foodservice systems and nutrition information problem solving/ decision making foodservice research methods forecasting	.25
5. Utilizes menu as the focal point in the overall control processes for the foodservice system menu planning cost control	.83
6. Manages foodservice subsystems, including procurement, food production, food distribution and service food production recipe standardization sensory analysis purchasing/ procurement forecasting inventory control distribution and service	.90

Table 18. Reliability of concept scores for relevance for originally assigned nine role delineation responsibility statements (cont.)

responsibility statements concepts	coefficient alpha
7. Manages foodservice system resources, including human, material, physical, and operational resources	
<u>Human</u>	.83
labor relations (unions)	
personnel management	
management theory	
instructional techniques	
employee training	
employee evaluations	
job specifications and descriptions	
<u>Material, physical, operational</u>	.89
sanitation and health regulations	
equipment/ layout	
computer applications	
industrial engineering techniques	
time management	
capital budgeting	
facility security	
safety regulations	
financial analysis techniques	
8. Manages Quality Assurance (QA) Program for area of responsibility	.72
quality assurance/ audits	
quality control	
9. Advocates action which advances foodservice systems management and improves nutrition status of consumers	.51
dietetic services marketing	
promotion of foodservice management	
legislative involvement	

Table 19. Reliability of concept scores for relevance for revised role delineation statements with multiple concept items

role delineation statement	coefficient alpha
1. Focuses foodservice operations on nutrition goals of target market nutrition requirements (of consumers)	-
2. Advances practitioner competence self evaluation	-
3. Promotes positive relationship with others organizational politics	-
4. Utilizes current foodservice systems and nutrition information foodservice research methods	-
5. Utilizes menu as the focal point in the overall control processes for the foodservice system menu planning cost control	.83
6. Manages foodservice subsystems, including procurement, food production, food distribution and service food production recipe standardization sensory analysis purchasing/ procurement forecasting inventory control distribution and service	.92

Table 19. Reliability of concept scores for relevance for revised role delineation statements with multiple concept items (cont.)

role delineation statement	coefficient alpha
7. Manages foodservice system resources, including human, material, physical, and operational resources	.92
labor relations (unions)	
personnel management	
management theory	
instructional techniques	
employee training	
employee evaluations	
job specifications and descriptions	
sanitation and health regulations	
equipment/ layout	
computer applications	
industrial engineering techniques	
capital budgeting	
facility security	
safety regulations	
financial analysis techniques	
8. Manages Quality Assurance (QA) Program for area of responsibility	.72
quality assurance/ audits	
quality control	
9. Advocates action which advances foodservice systems management and improves nutrition status of consumers	.51
dietetic services marketing	
promotion of foodservice management	
legislative involvement	
10. Provides consulting services based on professional knowledge and experience	-
consulting skills	

Table 20. Modified role delineation responsibility statements and abbreviated titles

	responsibility statement	abbreviated title
RD1	Focuses foodservice operations on nutrition goals of target market. nutrition requirements (of consumers)	Client focus
RD2	Advances practitioner competence. self evaluation	Self evaluation
RD3	Promotes positive working relationships with others whose work has an impact on foodservice system. organizational politics	Organizational politics
RD4	Utilizes current foodservice systems and nutrition information. foodservice research methods	Research methods
RD5678	Utilizes menu as the focal point in the overall control processes for the food-service system. Manages foodservice subsystems, including procurement, food production, food distribution and service. Manages foodservice system resources, including human, material, physical, and operational resources. Manages Quality Assurance (QA) Program for area of responsibility. menu planning cost control food production recipe standardization sensory analysis purchasing/ procurement forecasting	Operations

Table 20. Modified role delineation responsibility statements and abbreviated titles (cont.)

	responsibility statement	abbreviated title
RD5678	(cont.)	
	<ul style="list-style-type: none"> inventory control distribution and service labor relations (unions) personnel management management theory written/ oral communications instructional techniques problem solving/ decision making employee training employee evaluations job specifications and descriptions sanitation and health regulations equipment/ layout computer applications industrial engineering techniques time management capital budgeting principles of merchandising facility security safety regulations financial analysis techniques quality assurance/ audits quality control 	
RD9	<p>Advocates action which advances food-service systems management and improves nutrition status of consumers.</p> <ul style="list-style-type: none"> dietetic services marketing promotion of foodservice management legislative involvement 	Advocacy
RD10	<p>Provides consulting services based on professional knowledge and experience</p> <p>consulting skills</p>	Consulting

Table 21. Mean relevance ratings¹ of role delineation concepts² categorized by use of master's degree for registration eligibility and date of graduation

variable	RD1	RD2	RD3	RD4	RD5678	RD9	RD10
	← mean relevance →						
registration eligibility:							
yes	4.22*	4.14	3.80	2.43	3.67	3.43	3.43
no	3.56	3.72	3.46	2.68	3.60	3.13	3.07
year grad.:							
1974-1979	3.83	4.06	3.49	2.66	3.50	3.20	3.56
1980-1984	3.95	3.80	3.78	2.44	3.77	3.35	2.99
registration eligibility, yes:							
1974-1979	4.29	4.43	3.71	2.64	3.58	3.45	4.07
1980-1984	4.16	3.84	3.89	2.21	3.77	3.40	2.89
registration eligibility, no:							
1974-1979	3.37	3.68	3.26	2.68	3.43	2.95	3.05
1980-1984	3.75	3.75	3.67	2.67	3.78	3.31	3.08

¹Scale = 1, unrelated to my job to 5, essential.

²Role delineation concept categories as explained in Table 19.

*p ≤ .05

Table 22. Mean relevance ratings¹ of role delineation concepts² categorized by prior foodservice experience and date of graduation

variable	RD1	RD2	RD3	RD4	RD5678	RD9	RD10
	← mean relevance →						
foodservice experience:							
yes	4.02	3.91	3.58	2.62	3.66	3.32	3.13
no	4.00	3.92	3.50	2.25	3.71	2.96	3.54
year grad.:							
1974-1979	3.70	3.94	3.43	2.65	3.41*	3.10	3.54
1980-1984	4.32	3.88	3.65	2.22	3.95	3.18	3.13
foodservice experience, yes:							
1974-1979	4.15*	4.05	3.35	2.80	3.56	3.20	3.25
1980-1984	3.88	3.76	3.80	2.44	3.76	3.44	3.00
foodservice experience, no:							
1974-1979	3.25*	3.83	3.50	2.50	3.27	3.00	3.83
1980-1984	4.75	4.00	3.50	2.00	4.15	2.92	3.25

¹Scale = 1, unrelated to my job to 5, essential.

²Role delineation concept categories as explained in Table 19.

*p ≤ .05

Table 23. Mean adequacy ratings¹ of KSU preparation in role delineation concepts² categorized by use of master's degree for registration eligibility and date of graduation

variables	RD1	RD2	RD3	RD4	RD5678	RD9	RD10
	← mean KSU preparation →						
registration eligibility:							
yes	3.07*	2.38*	2.27	2.72	2.57	2.11*	2.18
no	2.40	2.90	2.52	3.05	2.69	2.59	2.74
year grad.:							
1974-1979	2.75	2.42*	2.39	2.91	2.65	2.35	2.53
1980-1984	2.72	2.86	2.40	2.86	2.61	2.36	2.39
registration eligibility, yes:							
1974-1979	3.50**	2.29	2.17	2.87	2.62	2.23	2.18
1980-1984	2.65	2.47	2.38	2.51	2.53	2.00	2.18
registration eligibility, no:							
1974-1979	2.00**	2.55	2.62	2.95	2.68	2.46	2.88
1980-1984	2.80	3.25	2.42	3.14	2.70	2.72	2.60

¹Scale = 1, inadequate to 4, excellent.

²Role delineation concept categories as explained in Table 19.

*p ≤ .05

**p ≤ .01

GRADUATES' ASSESSMENT OF THE M.S. DEGREE PROGRAM
IN INSTITUTIONAL MANAGEMENT AT KANSAS STATE UNIVERSITY

by

MARY C. MCGLOHN ECKLUND

B.S., Mississippi State College for Women, 1970

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Hotel, Restaurant, Institution
Management, and Dietetics

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1987

ABSTRACT

The purpose of this research was to evaluate the Master of Science degree program in Institutional Management at Kansas State University (KSU) based on the perceptions of 102 graduates (1974-1984) employed in dietetics or foodservice management for at least a year. Eighty (78.2%) of the graduates responded, and most (73.4%) were registered dietitians. Almost half (N = 38) reported using the M.S. degree to earn registration eligibility.

The questionnaire included three scales to assess 39 foodservice systems management concepts for relevance, KSU preparation, and competence gained from other sources. Concepts were adapted from research by Scheule et al. and Seal et al. and also the major nine responsibility statements from the role delineation study for foodservice systems management. The demographic section, in addition to the usual questions, queried concerning first and present position employment. The questionnaire included a comment section for rating KSU graduate education and for comments.

Graduates rated seven concepts as "essential" to their present positions with problem solving/ decision making, written/ oral communications, and personnel management receiving the highest ratings for relevance. Most of the concepts were rated "very important" and the remainder "important."

Graduates' KSU preparation was rated "excellent" for eight of the concepts. Management theory and industrial engineering techniques received the highest ratings followed by problem solving/ decision

making, written/ oral communications, and personnel management. Most of the remaining concepts were rated as "good" and seven as "satisfactory."

Graduates indicated about half of their competence was gained from sources other than graduate school; however, management theory, industrial engineering techniques, and foodservice research methods were strongly identified as less likely to be learned outside of graduate school.

The 39 concepts were categorized according to association with major responsibility statements of the role delineation study. Seven categories of role delineation statements were established: RD1, client focus; RD2, self evaluation; RD3, organizational politics; RD4, foodservice research methods; RD5678, operations; RD9, advocacy; and RD10, consulting, which was added. Means of concept ratings were determined for relevance and KSU preparation. All roles were rated "very important" except RD4, foodservice research methods, which was rated "important" for relevance and "excellent" for KSU preparation.

Graduates gave their education an overall mean rating of 3.22 on a scale of 4, excellent, to 1, poor. Graduates commented that computer applications was the preeminent choice graduates would make if currently enrolled.

Graduates evaluated their graduate education favorably. Most of these graduates are employed in some aspect of foodservice systems management or dietetics and indicated that concepts studied in the graduate program are relevant to present professional positions.